

L Number	Hits	Search Text	DB	Time stamp
3	3	((encrypt\$4 OR scrambl\$4 OR encipher\$4 OR encypher\$4 OR mask\$4 OR opaque) NEAR4 (password\$1 OR (pass ADJ1 word\$1) OR passphrase\$1 OR (pass ADJ1 phrase\$1) OR PIN\$1)  WITH (graph\$4 OR imag\$4 OR photograph\$3 OR pictur\$4))  AND  ((decrypt\$4 OR descrambl\$4 OR unscrambl\$4 OR decipher\$4 OR decypher\$4 OR uncover\$4 OR construct\$4 OR reconstruct\$4 OR restor\$5) NEAR4 (password\$1 OR (pass ADJ1 word\$1) OR passphrase\$1 OR (pass ADJ1 phrase\$1) OR PIN\$1)  WITH (graph\$4 OR imag\$4 OR photograph\$3 OR pictur\$4))	EPO; JPO; DERWENT	2002/09/23 15:20

PAT-NO: WO009705578A1

DOCUMENT-IDENTIFIER: WO 9705578 A1

TITLE: METHOD AND APPARATUS FOR SECURELY HANDLING A  
PERSONAL IDENTIFICATION  
NUMBER OR CRYPTOGRAPHIC KEY USING BIOMETRIC TECHNIQUES

PUBN-DATE: February 13, 1997

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INT-CL (IPC): G07C009/00;G07F007/10 ;H04L009/08

EUR-CL (EPC): G07C009/00 ; H04L009/08

ABSTRACT:

A method and apparatus using biometric information (such as a fingerprint, an iris structure, etc.) as a cipher for encrypting and decrypting a personal identification number (PIN) which is used as an input to a PIN requiring device. The method of encryption of a PIN includes generating a sequence of random characters representing a PIN to be encrypted; obtaining a generating function such that the random characters are coefficients in an expansion of a

square of said generating function over basis functions; and dividing a transform of the generating function by Fourier transformed information image signal to obtain the encrypted PIN. The latter is stored digitally in a personal card or a database. To decrypt the PIN, a full-complex spatial light modulator is illuminated with an optical beam carrying the Fourier transform of the biometric image of an individual to be identified. The encrypted PIN may be also stored in a reflective hologram which is nondestructively attached to a personal card, and the decryption of a PIN comprises illuminating the hologram with the beam carrying the Fourier transform of the biometric image. In other embodiments of the invention, a cipher is derived from an intensity distribution (captured directly by a camera) of the Fourier spectrum of the biometric image. The PIN may be encrypted and decrypted either optically (with phase conjugation techniques) or digitally (using a block encrypting algorithm).

L Number	Hits	Search Text	DB	Time stamp
1	25	((encrypt\$4 OR scrambl\$4 OR encipher\$4 OR encypher\$4 OR mask\$4 OR opaque) NEAR4 (password\$1 OR (pass ADJ1 word\$1) OR passphrase\$1 OR (pass ADJ1 phrase\$1))  WITH (graph\$4 OR imag\$4 OR photograph\$3 OR pictur\$4))	USPAT	2002/09/23 15:06

US-PAT-NO: 5812278

DOCUMENT-IDENTIFIER: US 5812278 A

TITLE: Image communicating method, facsimile type  
electronic mail apparatus  
and facsimile apparatus

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FIG. 16 shows a procedure for forming a cipher key in  
dependence on image data  
obtained from a manuscript and enciphering a pass-word by  
using the cipher key;

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